PTO/SB/21 (09-04)

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OIPE IAP28 OCT 17 2005 PATENT & TRADEMARK OFFICE

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/688,329
Filing Date	October 17, 2003
First Named Inventor	Kodama, Shoji
Art Unit	2623
Examiner Name	Amelia Megan Au
Attorney Docket Number	16869B-081000US

Total Number of Pages in This Submission

ENCLOSURES *(Check all that apply)*

- ☒ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
  - ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☒ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
  - ☐ Landscape Table on CD
- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) (please identify below):

Appendix A, 5 references, Table of Contents
Return Postcard

Remarks The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Townsend and Townsend and Crew LLP		
Signature			
Printed name	George B. F. Yee		
Date	October 14, 2005	Reg. No.	37,478

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Signature			
Typed or printed name	Cynthia McKinley	Date	October 14, 2005

60610460 v1

PTO/SB/17 (12-04)

Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT	($) 130

Complete if Known	
Application Number	10/688,329
Filing Date	October 17, 2003
First Named Inventor	Kodama, Shoji
Examiner Name	Unassigned
Art Unit	2623
Attorney Docket No.	16869B-081000US

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 20-1430 Deposit Account Name: Townsend and Townsend and Crew LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES Fee ($)	FILING FEES Small Entity Fee ($)	SEARCH FEES Fee ($)	SEARCH FEES Small Entity Fee ($)	EXAMINATION FEES Fee ($)	EXAMINATION FEES Small Entity Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ -20 or HP =	_____	x _____	= _____

HP = highest number of total claims paid for, if greater than 20

Indep. Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ -3 or HP =	_____	x _____	= _____

HP = highest number of independent claims paid for, if greater than 3

Multiple Dependent Claims: Fee ($) _____ Fee Paid ($) _____

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee ($)	Fee Paid ($)
_____ - 100 =	_____	/ 50 = _____ (round up to a whole number)	x _____	= _____

4. OTHER FEE(S)

	Fees Paid ($)
Non-English Specification, $130 fee (no small entity discount)	
Other: Petition Fee	130

SUBMITTED BY

Signature		Registration No. (Attorney/Agent) 37,478	Telephone 650-326-2400
Name (Print/Type)	George B.F. Yee		Date October 14, 2005

60610488 v1

PATENT
Docket No.: 16869B-081000US
Client Ref. No.: HAL 276 (340300836US1)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Shoji Kodama

Application No.: 10/688,329

Filed: October 17, 2003

For: Method and Apparatus for File Replication with a Common Format

Customer No.: 20350

Confirmation No. 2311

Examiner: Amelia Megan Au

Technology Center/Art Unit: 2623

PETITION TO MAKE SPECIAL FOR NEW APPLICATION PURSUANT TO 37 C.F.R. § 1.102(d) & M.P.E.P. § 708.02, Item VIII, ACCELERATED EXAMINATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is a petition to make special the above-identified application in accordance with MPEP § 708.02, Item VIII, accelerated examination. The application has not received any examination by the Examiner.

(A) The Commissioner is authorized to charge the petition fee of $130 under 37 C.F.R. § 1.17(h), and any additional fees that may be associated with this petition may be charged to Deposit Account No. 20-1430.

(B) All the claims are believed to be directed to a single invention. If the examiner determines that all the claims presented are not obviously directed to a single invention, then Applicant will make an election without traverse as a prerequisite to the grant of special status where the specific grouping of claims will be determined by the examiner.

10/18/2005 HDESTA1 00000129 201430 10688329
01 FC:1464 130.00 DA

(C) A pre-examination search was performed by an independent patent search firm. The pre-examination search includes a classification search, a computer database search, and a keyword search. The classification search covered the following classes and sub-classes:

Class / Subclasses
711/ 100, 114, 161, 162
714/ 6

Additionally, a computer database search was conducted on the USPTO systems EAST and WEST. The following references were identified in the search report:

U.S. Patent Nos.:

5,592,618	Micka et al.
6,389,459	McDowell
6,636,908	Winokur et al.
6,718,447	Cochran
6,728,849	Kodama

(D) The above references are enclosed herewith, collectively as Exhibit A.

(E) Set forth below is a detailed discussion of the references, pointing out with particularity how the claimed subject matter recited in the claims, amended according to the preliminary amendment filed herewith, is distinguishable over the references.

Claimed Subject Matter of the Present Invention

There are seven independent claims among the thirty-nine pending claims.

The independent claims are directed to file servers.

Claim 1 recites a combination of performing file operations in response to a file request on a copy of a file contained in a first file system and selectively performing file operations on a different second file system in response to the file request. Client systems can access the first file system only via a file server, while client systems can access the second file system directly. Independent claim 23 recites similar elements in a file server. Independent claim 33 recites similar elements as claim 1, in an application server. Independent claim 37 recites similar elements as claim 1, in means plus function language.

Independent claim 10 recites a combination of steps including performing a first operation on a first file in a first file system and storing information representative of the first

operation on a queue. For each entry in the queue, a second operation is performed on a second file in a second file system different from the first file system.

Independent claim 17 recites a combination of communicating first file operations to a first file system in connection with a file request, and if the file request is a write-type of request then second file operations are communicated to a second file system. The second file operations are performed after the file request on the first file system has completed.

Independent claim 20 recites performing a file request on a file in a first file system, and if the file request is a close file operation then a copy of the file is produced and stored on a second file system.

U.S. Patent No. 5,592,618 Micka et al.

The patent to Micka et al. (5,592,618), assigned to International Business Machines Corporation, provides for a *Remote Copy Secondary Data Copy Validation-Audit Function*. Primary site **421** has primary processor **401** executing application programs **402** and **403** that store data on primary DASDs **406** through primary storage controller **405**. Secondary site **431** includes secondary processor **411**, secondary storage controller **415** and secondary DASDs **416** which serve to mirror the data on the primary DASDs. Information regarding all data writes to the primary DASDs over a time interval are collected into a group and transmitted to the secondary site where the information is used to synchronize the remote copy of the data. The primary and secondary data storage devices may use different data formats (see column 7, line 55 through column 8, line 51 and column 16, lines 37-38).

Micka et al. disclose that all data writes are transmitted to the secondary site, albeit after a delayed time interval. The independent claims recite that file operations that are performed on a first file system are selectively performed on a second file system; e.g., claims 1, 10, 23, 33, and 37. Claim 17 recites that if the file request is a write request, then the request is communicated to the second file system, by virtue of the delay described by Micka et al. Claim 20 recites that if the file request is a close operation then a copy is made in the second file system. Micka et al. do not show or suggest the foregoing discussed elements as recited in the independent claims.

U.S. Patent No. 6,389,459 McDowell

The patent to McDowell (6,389,459), assigned to NCR Corporation, provides for *Virtualized Storage Devices for Network Disk Mirroring Applications*. Primary server **201** provides client computers with read and write access to mirrored volumes **215**, while secondary server **203** hosts the copies of mirrored volumes 215 as mirrored volumes **235**. File system mirror driver **307** receives requests from the client computers to access the volumes **215**. If the request is a write request to a mirrored volume, the request is sent to the secondary mirrored volume to be executed on volumes **235**. After secondary server **203** returns a success message, the primary storage executes the write on its mirrored volumes **215**. Write request for non-mirrored volumes and read requests are handled as normal operations with no involvement of the secondary server required (see column 4, line 65 through column 5, line 22).

McDowell discloses "mirrored volumes," which by definition means that the file system on the primary server and on the secondary server are identical file systems. McDowell therefore does not show or suggest a first file system different from a second file system as recited in claims 1, 10, 23, 33, and 37. McDowell does not show or suggest storing file operations in entries of a queue and then performing operations on the second file system for each entry in the queue, as recited in claim 10. McDowell does not show or suggest that the second file operations on the second file system are performed after the file request has on the first file system has completed, as recited in claim 17. McDowell does not show or suggest that if the operation on the first file system is a close operation then copying the file to the second file system, as recited in claim 20.

U.S. Patent No. 6,636,908 Winokur et al.

The patent to Winokur et al. (6,636,908), assigned to SANgate Systems, INC., provides for an *I/O System Supporting Extended Functions and Methods Thereof.* I/O stream splitter **200** intercepts an I/O stream from mainframe **110** directed towards storage on control unit **320**. The I/O stream splitter transmits the intercepted I/O stream on to the target control unit, and in parallel, transmits an altered version of the I/O stream to control unit **330** that

manages a mirrored version of the data of control unit **320**. Alterations to the I/O stream include changes to the control information, or changes to the data itself, including changes to the data format (see column 5, line 52 through column 6, line 24).

Winokur et al. disclose that I/O stream splitter transmits the intercepted I/O stream to control unit that manages mirrored data. The independent claims recite that file operations that are performed on a first file system are selectively performed on a second file system; e.g., claims 1, 10, 23, 33, and 37. Claim 17 recites that if the file request is a write request, then the request is communicated to the second file system. Claim 20 recites that if the file request is a close operation then a copy is made in the second file system. Winokur et al. do not show or suggest the foregoing discussed elements as recited in the independent claims.

U.S. Patent No. 6,718,447 Cochran

The patent to Cochran (6,718,447), assigned to Hewlett-Packard Development Company, L.P., provides a *Method and System for Providing Logically Consistent Logical Unit Backup Snapshots Within One or More Data Storage Devices*. Applications running on host computer **402** generate I/O requests for data stored on primary LUN **420** of disk array **418**, which is mirrored by backup LUN **428** of secondary disk array **424**. When a request is received, it is determined whether the request is a write, read, or other operation. Write requests for the primary LUN are stored in input queue **416**, executed on the primary LUN, and then mirrored to output queue **422** for transmission to input queue **426** of the secondary disk array for writing to backup LUN **428** (see column 5, line 56 through column 6, line 21 and column 13, line 61 through column 62, line 13).

Cochran discloses queuing up write requests which are then mirrored to a backup LUN. Cochran does not show or suggest a first file system different from a second file system as recited in claims 1, 10, 23, 33, and 37. Because of the presence of the queuing mechanism, Cochran does not show or even suggest that the second file operations on the second file system are performed after the file request has on the first file system has completed, as recited in claim 17. Cochran does not show or suggest that if the operation on the first file system is a close operation then copying the file to the second file system, as recited in claim 20.

U.S. Patent No. 6,728,849 Kodama

The patent to Kodama (6,728,849), assigned to Hitachi, Ltd., provides for a *Remote Storage System and Method.* Local storage facility includes control unit **22** for managing I/O read and write requests from servers **24** directed towards volumes **20**. Remote storage facility **12'** provides data mirroring of at least a portion of the data at local storage facility **12**. When request handling process **50** of control unit **22** receives an I/O request, it first determines the type of request to see if it is a write request. If the request is a write request, write procedure **60** is executed and then followed by a remote copy request to write the data to the remote storage if the local storage destination of the write request is mirrored at remote storage facility **12'**. Remote copy requests destined for the remote storage facility are stored in queue **44** (see column 3, line 61 through column 6, line 2).

Kodama describes data mirroring, and so does not show or suggest a first file system different from a second file system as recited in claims 1, 10, 23, 33, and 37. Kodama describes queuing remote copy requests. Kodama, therefore does not show or suggest that the second file operations on the second file system are performed after the file request has on the first file system has completed, as recited in claim 17. Kodama does not show or suggest that if the operation on the first file system is a close operation then copying the file to the second file system, as recited in claim 20.

Conclusion

In view of this comments presented in the instant petition and the claim amendments presented in the accompanying preliminary amendment, the Examiner is respectfully requested to issue a first Office Action at an early date.

Respectfully submitted,

George B. F. Yee
Reg. No. 37,478

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Attachments
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Appendix A

TABLE OF CONENTS